

**CLAIMS.**

1. A visual indicating device comprising two or more discs each disc having a radial discontinuity to thereby form a surface of which the plane progresses in a helical manner, said discs being superposed and interleaved and lying  
5 in mutually parallel helical planes, each disc being independently rotatable about a common axis by drive means adapted to selectively rotate one or other of the discs, whereby the discs, when viewed axially face on, display overlapping visually contrasting segments having an area or position representative of the relative positions of rotation of the discs and  
10 representing a value of a parameter to be displayed by the device.
2. A device in accordance with claim 1, wherein one disc is mounted to extend laterally from a rotatable shaft or cylinder, the other disc being mounted to extend laterally from the outer surface of a rotatable cylinder within which the shaft rotates, the said shaft being mounted coaxially within the cylinder  
15 with the cylinder having a helical slot in the wall thereof and through which an inner portion of the one disc adjacent the shaft extends, rotation of the shaft relative to the cylinder producing relative axial movement between the shaft and the cylinder by virtue of the disc moving in the slot in the cylinder and causing the one disc which is overlying the other disc to mask, or  
20 expose, the other disc by an extent dependent on the relative positions of rotation.
3. A device in accordance with claim 1 or 2, wherein an end of the shaft is coupled to a drive means, the shaft being rotated by the drive means to

produce a revolution of the shaft, the outer cylinder being coupled to the drive means and rotated by the drive means to produce a revolution of the cylinder, the shaft and cylinder being sequentially rotated by the drive means.

- 5 4. A device in accordance with claim 3, wherein an end of the shaft is coupled to a drive means, the shaft being rotated during one half a revolution of the drive means to produce a revolution of the shaft, the outer cylinder being coupled to the drive means and driven for the other one half revolution of the drive means to produce a revolution of the cylinder, the shaft and  
10 cylinder being sequentially rotated during continuous rotation of the drive means.
5. A device in accordance with any preceding claim, wherein the outer cylinder, when held against rotation and not driven, moves down telescopically over the shaft during rotation of the latter after which, in a  
15 terminal position, the outer cylinder is then rotated to move up over the shaft which is held against rotation and not driven, ratchet means being preferably provided to permit uni-directional rotation by the drive means.
6. A device in accordance with any preceding claim, wherein the outer cylinder comprises a barrel member which embraces the inner shaft which may also  
20 comprise a coaxially located barrel member.
7. A device in accordance with any preceding claim, wherein the drive means comprises a mechanism which, during operation, selectively engages the shaft for a revolution thereof and then engages the cylinder for a revolution

thereof and in a cyclically continuous manner.

8. A device in accordance with claim 7, wherein the mechanism incorporates two superposed gears with complementary but non-aligned discontinuities in the peripheral teeth, the arrangement being such that teeth on one gear engage the shaft to drive same during part of a revolution and during which the teeth on the other gear are not in engagement with the cylinder which remains stationary.
9. A device in accordance with any preceding claim, modified in that drive means are coupled to the shaft and to the cylinder, each drive means being independently operated to rotate the shaft and cylinder to provide a differential indication of the relative positions of the drive means.
10. A device in accordance with any preceding claim, wherein more than two cylinders are provided, the cylinders being nested telescopically and each including a disc, the disc of an inner barrel passing through a slot in an outer barrel.
11. A device in accordance with any preceding claim, wherein a plurality of shaft and cylinder assemblies are located in axial alignment one above the other and arranged so that an edge at least of an underlying pair of discs is visible beneath an uppermost disc, whereby the totality of visible contrasting segments of the discs collectively represent a parameter to be displayed.
12. A device in accordance with any preceding claim, wherein the parameter to be displayed comprises time, either elapsed or absolute, each disc being

rotated over a revolution equal to a conventional time period, such as twenty four or twelve hours or one minute, the relative positions of rotation of the discs and the angular zones displayed thus displaying a portion of the time period.

5 13. A device arranged to function substantially as described herein and exemplified with reference to Figs. 1 to 5 of the drawings.

14. A device arranged to function substantially as described herein and exemplified with reference to Figs. 6 to 12 of the drawings.

10 15. A device arranged to function substantially as described herein and exemplified with reference to Figs. 13 and 14 of the drawings.